



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7510P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

90643-1

Date of Issuance:

4/13/17

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

MultiMicro™ Salt

Name and Address of Registrant (include ZIP Code):

Brian C. Brosdahl, Ph.D., P.E.
Managing Consultant
Agent for Tennant Company
AP Strategies, LLC
322 Broadway Street South
Stillwater, MN 55082

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Through this registration notice, EPA is issuing a single registration for a precursor material (sodium chloride), a generator device ("os3 Generator"), one output solution ("MultiMicro™ Concentrate") and one diluted use solution ("MultiMicro™ 200"). The precursor, device, output, and diluted use solution together comprise the registration and each component, including any container filled with output solution or diluted use solution must have affixed to it the proper labeling for EPA Registration No. 90643-1: a label for sodium chloride ("MultiMicro™ Salt"), a label for the 0.15% Hypochlorous Acid solution ("MultiMicro™ Concentrate"), or a label for the 0.02% Hypochlorous Acid solution ("MultiMicro™ 200"). A technical manual that provides information on the generator device "os3 Generator" has also been reviewed by EPA and is associated by reference with this registration.

Signature of Approving Official:

Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Date:

4/13/17

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 90643-1."
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 07/01/2016

If you have any questions, please contact Srinivas Gowda by phone at (703) 308-6354 or via e-mail at gowda.srinivas@epa.gov

Sincerely,



Demson Fuller, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)
Office of Pesticide Programs

Enclosure

ACCEPTED

04/13/2017

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 90643-1

Tennant Master Label for United States

MultiMicro™ Salt

PRECURSOR FOR GENERATING MULTIMICRO *CONCENTRATE*

(One-Step [Cleaner-Disinfectant] [Disinfectant-Cleaner]) – (Food Contact Surface Sanitizer) – (Non-Food Contact Surface Sanitizer) – (3rd Sink Sanitizer)

(Bactericidal) – (*Virucidal) – (Fungicidal) – (Deodorizer) – (Odor Counteractant) – (Odor Neutralizer) – (Concentrate)

(Hospitals) – (Nursing Homes) – (Retail) – (Hospitality) – (Higher Education) – (Convention Centers) -- (Schools) – (Daycare Centers) - (Restaurants) – (Food Service) – (Beverage and Food Processing Plants) – (Transportation) -- (Industrial & Institutional Use)

(Disinfecting solution) – (Sanitizing Solution) -- (Cost effective to produce) – (Produced by an electrolytic cell) – (Diluted for use) – (Produced with a controlled, near-neutral pH) – (Concentration of Free Available Chlorine (FAC)) – (Produced with water, energy, and a small amount of salt)

ACTIVE INGREDIENT:

Sodium Chloride.....99.97%

OTHER INGREDIENTS.....0.03%

TOTAL.....100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

FOR EMERGENCY MEDICAL INFORMATION CALL: 1-800-424-9300

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

Tennant Master Label for United States

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

MultiMicro *Salt* is a precursor for the generation of MultiMicro *Concentrate*, an activated aqueous solution of sodium chloride produced by passing salt brine through an electrolytic cell (os3 Generator) and changing the properties of the salt water into an antimicrobial oxidizing agent. MultiMicro *Concentrate* is produced where the predominant active ingredient is 1500 ppm free available chlorine. MultiMicro *Concentrate* is intended to be used within 30 days post-generation.

MultiMicro *Concentrate* is then diluted with water at a ratio of 7:1 and dispensed by the os3 Dispensing System as a 200 ppm free available chlorine use-solution ("MultiMicro 200"). MultiMicro 200 is produced where the predominant active ingredient is 200 ppm free available chlorine. MultiMicro 200 is intended to be used within 7 days post-generation. MultiMicro 200 must be stored in a closed, high-density plastic container in a cool, dark area away from direct sunlight. Use supplied chlorine test strips to confirm concentration of 200 ppm free available chlorine.

ONE-STEP [CLEANER-DISINFECTANT] [DISINFECTANT-CLEANER]

MultiMicro 200 is effective as a broad-spectrum and hospital-grade [disinfectant-cleaner] [cleaner-disinfectant] on hard non-porous surfaces. Pre-clean heavily soiled surfaces. Thoroughly wet surface with cloth, mop, brush, immersion or coarse spray from pump or trigger sprayer. Allow surface to remain wet 10 minutes. Remove solution with a mop, cloth, sponge, vacuum pickup, wiping or allow to air dry. When used in a trigger-sprayer, prepare fresh solution within 7 days of initial dilution. When used in open containers (e.g. mop bucket) prepare fresh solution at least daily or when solution becomes visibly dirty.

MultiMicro 200 is effective against a wide variety (broad-spectrum) of microorganisms, including bacteria, antibiotic-resistant bacteria, viruses, and fungi.

BACTERICIDAL:

MultiMicro 200 is bactericidal according to the current AOAC Disinfectant Use Dilution Method in the presence of 5% organic soil and 400 ppm AOAC hard water at a contact time of 10 minutes on hard, non-porous surfaces.

Bacteria:

Staphylococcus aureus, (ATCC 6538)
Salmonella enterica (ATCC 10708)
Pseudomonas aeruginosa (ATCC 15442)
Burkholderia cepacia (ATCC 25416)

Antibiotic-Resistant Bacteria:

Acinetobacter baumannii (MDR) (ATCC 19606)
(multi-drug resistant)
Enterococcus faecalis (VRE) (ATCC 51575)
(Resistant to Vancomycin [VRE])
Klebsiella pneumonia (CDC 1000527)
New-Delhi Metalloproteinase-1 (NDM-1)
(Resistant to Carbapenem [CRE])

Staphylococcus aureus (MRSA) (ATCC 55391)
(Resistant to Methicillin [MRSA])
Staphylococcus aureus (VISA) (HIP 5386)
(Intermediate Resistance to Vancomycin [VISA])

*VIRUCIDAL:

MultiMicro 200 is virucidal in the presence of 5% organic soil and 400 ppm AOAC hard water at a contact time of 10 minutes on hard, non-porous surfaces.

*Human Viruses:

HIV Type 1 (HTLV-III_B)
Influenza A (H1N1) virus (ATCC VR-98)
Herpes Simplex Virus, Type 2 (ATCC VR-734)
Poliovirus Type 1 (ATCC VR-1562)
Hepatitis C virus (HCV)
Norovirus
Rhinovirus, Type 37 (ATCC VR-1147)

Tennant Master Label for United States

FUNGICIDAL:

MultiMicro 200 is fungicidal according to the current AOAC Use Dilution Method modified for fungi in the presence of 5% organic soil and 400 ppm AOAC hard water at contact time of 10 minutes on hard, non-porous surfaces, tested using *Trichophyton mentagrophytes* [athlete's foot](ATCC 9533).

This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body either into or in contact with the bloodstream or normally sterile areas of the body or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi critical medical devices prior to sterilization or high level disinfection.

DEODORIZER:

MultiMicro 200 reduces odors and controls odor-causing bacteria in the presence of 5% organic soil in the presence of 400 ppm AOAC hard water at a contact time of 10 minutes on hard, non-porous surfaces.

NON-FOOD CONTACT SURFACE SANITIZING

MultiMicro 200 is effective as a non-food contact hard surface sanitizer when tested against *Staphylococcus aureus* (ATCC 6538) and *Enterobacter aerogenes* (ATCC 13048) in the presence of 5% organic soil and 400 ppm AOAC hard water. Pre-clean heavily soiled surfaces. Thoroughly wet surface with cloth, mop, brush, immersion or coarse spray from pump or trigger sprayer. Allow surface to remain wet 5 minutes. Allow surfaces to air dry.

FOOD CONTACT SURFACE SANITIZING

MultiMicro Concentrate is effective as a food contact surface sanitizer when diluted in water up to 400 ppm hardness at concentrations of 50-200 free available chlorine. Use the product to sanitize pre-cleaned hard non-porous surfaces in food processing plants, food processing areas or restaurants, such as food processing equipment, sink tops, countertops, refrigerated storage areas, tableware, utensils, dishes and other hard non-porous food contact surfaces. The FDA Food Code advises that chlorine sanitizing solutions at concentrations of 50 to 99 ppm should be maintained at a temperature of 24 °C or above and a pH of 8 or below.

SANITIZE FOOD CONTACT SURFACES IN FOOD PROCESSING PLANTS AND RESTAURANTS:

Use MultiMicro Concentrate to sanitize pre-cleaned hard non-porous surfaces in food processing plants, food processing areas or restaurants, such as food processing equipment, sink tops, countertops, refrigerated storage areas.

- (1) Prior to application remove gross food particles and soil by a pre-flush, pre-scrape or, when necessary, a pre-soak.
- (2) Thoroughly wash or flush surfaces with Orbio MultiSurface Cleaner or other cleaning solution at a temperature not less than 43°C (110°F) or as specified on the cleaning agent manufacturer's label instructions.
- (3) Rinse surfaces with a distinct, separate water rinse.
- (4) Sanitize surfaces with use-solution dispensed via the os3 Dispensing System at concentrations of 50 to 200 ppm free available chlorine, thoroughly wetting surfaces by immersion or with a cloth, mop, sponge, or coarse sprayer.
- (5) Expose all surfaces to the sanitizing solution for a period of not less than 1 minute or for a time required by governing sanitary code. Allow surface to drain thoroughly and air dry. Do not rinse.
- (6) Prepare a fresh sanitizing solution daily or when visibly soiled or diluted. Do not exceed one day of use if in open container. Sanitizer stored in a spray bottle or sealed container is effective for up to 7 days.

SANITIZE EATING, DRINKING AND FOOD PREP UTENSILS:

Use MultiMicro Concentrate to sanitize pre-cleaned glassware, dishes, silverware, cooking utensils and other similar size food prep equipment.

- (1) Prior to application remove gross food particles and soil by a pre-flush, pre-scrape or, when necessary, a pre-soak.
- (2) Thoroughly wash utensils and equipment with Orbio MultiSurface Cleaner or other cleaning solution at a temperature not less than 43°C (110°F) or as specified on the cleaning agent manufacturer's label instructions.
- (3) Rinse surfaces with a distinct, separate water rinse.
- (4) Sanitize in a use-solution dispensed via the os3 Dispensing System at concentrations of 50 to 200 ppm FAC.
- (5) Immerse all utensils and equipment in sanitizing solution for a period of not less than 1 minute or for a time required by governing sanitary code. Allow surface to drain thoroughly and air dry. Do not rinse.
- (6) Prepare a fresh sanitizing solution daily or when visibly soiled or diluted. Do not exceed one day of use if in open container. Sanitizer stored in a spray bottle or sealed container is effective for up to 7 days.

NOTE: A clean potable water rinse following sanitization is not permitted under Section HFS 196, Appendix 7-204.11 of the Wisconsin Administrative Code (reference 40 CFR 180.940 (a)).

Tennant Master Label for United States

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal, or cleaning of equipment.

Storage: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Offer for recycling if available.

Manufactured by:
Tennant Company
701 North Lilac Drive
Minneapolis, MN 55422
Phone: 1-800-553-8033
Email: info@tennantco.com

EPA Est. No. 090643-KY-001

Net Contents: 40 lbs or pounds

Tennant Master Label for United States

Not for resale or distribution

{Master Label – Attachment 1}{for use on MultiMicro™ Concentrate container}

MultiMicro™ Concentrate

KEEP OUT OF REACH OF CHILDREN

CAUTION

Active ingredient: Hypochlorous Acid (0.15%)

DIRECTIONS FOR USE: It is a violation of federal law to use this product in a manner inconsistent with its labeling. Only use MultiMicro™ Concentrate through an Orbio Technologies dispensing system to ensure proper dilution to 200 ppm free available chlorine. See MultiMicro Salt label or Orbio os3 Generator side panel for complete directions for use.

PRECAUTIONARY STATEMENTS – HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed, absorbed through skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID – IF SWALLOWED: Call a poison control center or doctor for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. **IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice. **IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

FOR EMERGENCY MEDICAL INFORMATION CALL: 1-800-424-9300 (ChemTrac 24 hr.)

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PHYSICAL AND CHEMICAL HAZARDS: Strong oxidizing agent: Dilute only through Orbio Technologies dispensing systems. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) will release hazardous gas which is irritating to eyes, lungs and mucous membranes.

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage, disposal, or cleaning of equipment. **Storage:** Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. **Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Product that cannot be used must be diluted with water before disposal in a sanitary sewer. **Container Handling:** Refillable container. Refill this container with MultiMicro Concentrate only. Do not reuse this container for any other purpose. The container does not require cleaning before refilling. Cleaning the container before disposal is the responsibility of the person disposing of the container. To clean the container before disposal, empty the remaining contents into use-dilution container via os3 dispensing equipment. Fill container about 10 percent full with water. Agitate vigorously for two minutes. Repeat the rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Tennant Company, 701 North Lilac Drive, Minneapolis, MN 55440-1452

Questions? 1-800-553-8033/www.orbio.com

Tennant Master Label for United States

Not for resale or distribution

{Master Label – Attachment 2}{for use on MultiMicro™ 200 container}

MultiMicro™ 200

One-step Cleaner-Disinfectant
Food Contact Surface Sanitizer
Non-food Contact Surface Sanitizer
Deodorizer

Active ingredient: Hypochlorous Acid (0.02%)

KEEP OUT OF REACH OF CHILDREN

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Use only on hard non-porous surfaces. See MultiMicro *Salt* label or Orbio os3 Generator side panel for complete directions for use.

One-Step Cleaner-Disinfectant: Pre-clean heavily soiled surfaces. Thoroughly wet surface with cloth, mop, brush, immersion or coarse spray from pump or trigger sprayer. Allow surface to remain wet 10 minutes. Remove solution with a mop, cloth, sponge, vacuum pickup, wiping, or allow to air dry.

Food Contact Surface Sanitizing: Remove gross food particles and soil by a pre-flush, pre-scrape or, when necessary, a pre-soak. Next, thoroughly wash or flush objects with a detergent or compatible cleaner followed by a potable water rinse. Then, expose all surfaces to the sanitizing solution for a period of not less than 1 minute. Allow surface to drain thoroughly and air dry. Do not rinse.

Non-Food Contact Surface Sanitizing: Pre-clean heavily soiled surfaces. Thoroughly wet surface with cloth, mop, brush, immersion or coarse spray from pump or trigger sprayer. Allow surface to remain wet 5 minutes. Allow surfaces to air dry.

FOR EMERGENCY MEDICAL INFORMATION CALL: 1-800-424-9300 (ChemTrac 24 hr.)

PHYSICAL AND CHEMICAL HAZARDS: Strong oxidizing agent: Dilute only through Orbio Technologies dispensing systems. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) will release hazardous gas which is irritating to eyes, lungs and mucous membranes.

STORAGE AND DISPOSAL: Do not contaminate water, food or feed by storage, disposal, or cleaning of equipment.

Storage: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. **Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Product that cannot be used must be diluted with water before disposal in a sanitary sewer. **Container Handling:** Refillable container. Refill this container with MultiMicro *Concentrate* only. Do not reuse this container for any other purpose. The container does not require cleaning before refilling. Cleaning the container before disposal is the responsibility of the person disposing of the container. To clean the container before disposal, empty the remaining contents into use-dilution container via os3 dispensing equipment. Fill container about 10 percent full with water. Agitate vigorously for two minutes. Repeat the rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Tennant Company, 701 North Lilac Drive, Minneapolis, MN 55440-1452

Questions? 1-800-553-8033/www.orbio.com

Tennant Master Label for United States

Not for resale or distribution

{Master Label – Attachment 3}{os3 Operators Manual}



os|3

**ON-SITE GENERATOR
GENERADOR IN SITU
GÉNÉRATEUR SUR SITE**

English Operator Manual **EN**

Español Manual del operario **ES**

Français Manuel de l'Opérateur **FR**



North America / International



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www.tennantco.com/manuals

**DM20036
Rev. 00 (3-2014)**



INTRODUCTION

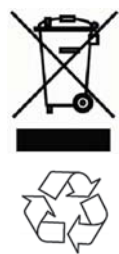
This manual is furnished with each new model. It provides necessary operation and maintenance instructions.



Read this manual completely and understand the machine before operating or servicing it.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly - per the machine maintenance instructions provided.
- The machine is maintained with manufacturer supplied or equivalent parts.



PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

MACHINE DATA

Please fill out at time of installation for future reference.

Model No. – _____

Serial No. – _____

Installation Date – _____

INTENDED USE

This machine is designed solely for creating, storing and dispensing Orbio MultiSurface and MultiMicro solution for internal professional use only. Not for resale. Buyer is responsible for ensuring that the solutions are labeled and used in accordance with local health and safety regulations. Not intended for human consumption.

Orbio Technologies

701 North Lilac Drive

Minneapolis, MN 55440

Phone: (800) 553-8033 or (763) 513-2850

www.orbio.com

MultiMicro™ is a trademark of Tennant Company.

Specifications and parts are subject to change without notice.

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IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS

The following precautions are used throughout this manual as indicated in their description:



WARNING: To warn of hazards or unsafe practices that could result in severe personal injury or death.

FOR SAFETY: To identify actions that must be followed for safe operation of equipment.

This machine is designed solely for creating, storing, and dispensing Orbio MultiSurface cleaner and MultiMicro 200 Solution.

The following information signals potentially dangerous conditions to the operator or equipment. Read this manual carefully. Know when these conditions can exist. Locate all safety devices on the machine. Then, take necessary steps to train machine operators. Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition.



WARNING: Electrical Hazard

- Do not operate with damaged power cord.
- Unplug power cord before servicing machine.
- Do not modify plug. If the power cord is damaged or broken, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.



WARNING: Electrical Shock Hazard. Do not use outdoors. Do not expose to rain / moisture. Store indoors.

This machine may be equipped with technology that automatically communicates over the cellular network. If this machine will be operated where cell phone use is restricted because of concerns related to equipment interference, please contact a Tennant representative for information on how to disable the cellular communication functionality.

FOR SAFETY:

1. Do not operate machine:
 - Unless trained and authorized.
 - Unless operator manual is read and understood.
 - Under the influence of alcohol or drugs
 - Unless mentally and physically capable of following machine instructions.
 - If it is not in proper operating condition.
 - In outdoor areas. This machine is for indoor use only.
2. When using machine:
 - Use only as described in this manual.
 - Do not use water softener as a step.
 - Keep children and unauthorized persons away from machine.
 - Do not allow to be used as a toy.
 - Follow site safety guidelines concerning wet floors.
3. When servicing machine:
 - Unplug cord from wall outlet.
 - All work must be done with sufficient lighting and visibility.
 - All repairs must be done by trained personnel.
 - Do not modify the machine from its original design.
 - Use Tennant supplied parts or approved replacement parts.
 - Do not remove e-module unless operator manual is read and understood.

4. When using MultiSurface Cleaner:
 - Do not mix with other cleaning products.
 - Do not drink.
 - Refer to SDS (Safety Data Sheet) for additional safety information and precautions.
 - Wear personal protection safety equipment as needed.
5. When using MultiMicro 200 Solution:
 - Do not mix this product with ammonia or acid, which will product chlorine gas.
 - Do not mix with other cleaning products.
 - Do not drink.
 - Refer to SDS (Safety Data Sheet) for additional safety information and precautions.
 - Wear personal protection safety equipment as needed.



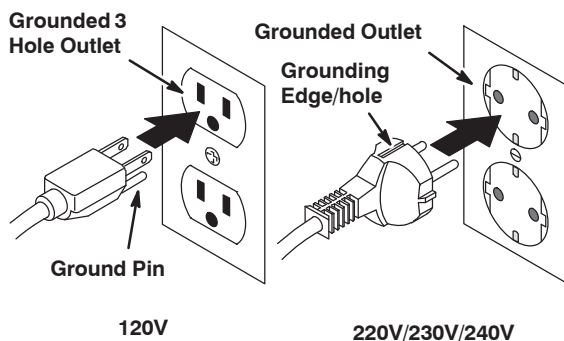
For Safety: wear protective gloves.



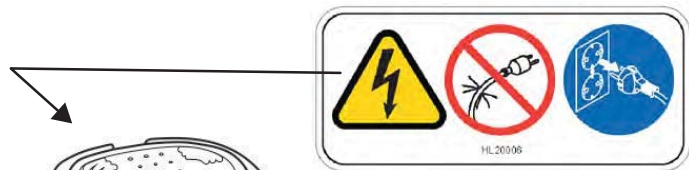
For Safety: wear eye protection.

GROUNDING INSTRUCTIONS

Equipment must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock. This equipment is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into a Ground Fault Circuit Interrupter (GFCI)-protected outlet or adapter that is properly installed in accordance with all local codes and ordinances. Do not remove ground pin; if missing, replace plug before use.



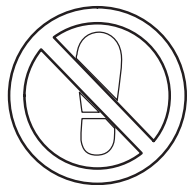
The safety labels appear on the equipment in the locations indicated. Replace damaged labels.



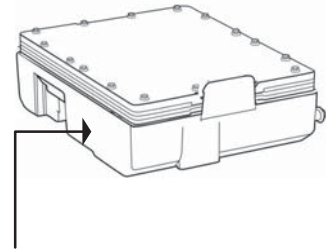
WARNING: Electrical hazard.
Do not use with damaged cord.
Unplug cord before servicing.



FOR SAFETY: Do not
operate machine unless
operator manual is read
and understood.



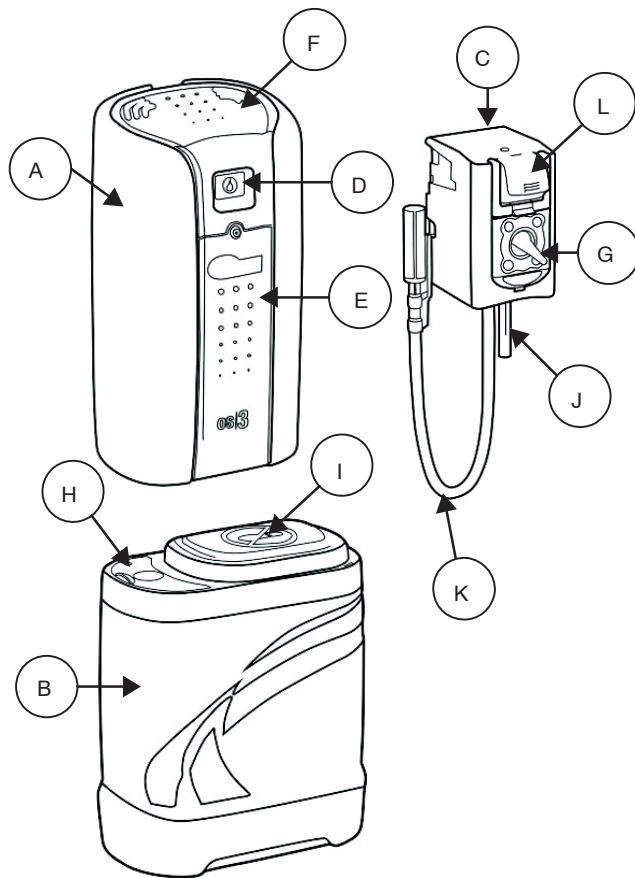
FOR SAFETY: When
using machine, do not
use water softener as
a step.



FOR SAFETY: When
servicing machine, do not
remove e-module unless
operator manual is
read and understood.

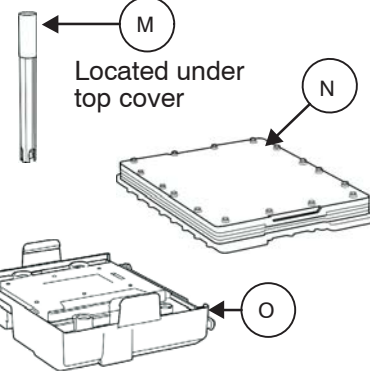
OPERATION

MACHINE COMPONENTS



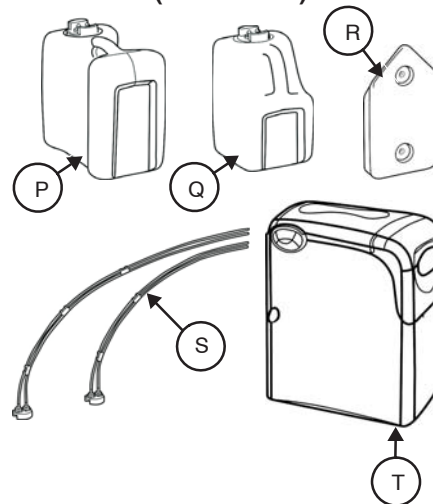
- A. os3 generator
- B. os3 water softener
- C. Dispenser
- D. Touch screen display
- E. Front access panel with panel lock
- F. Top cover
- G. Selector knob and selector panel
- H. Salt reservoir cover
- I. Water softener cover
- J. Bottle fill tube
- K. Bucket and equipment fill tube
- L. Dispenser button

WEAR COMPONENTS



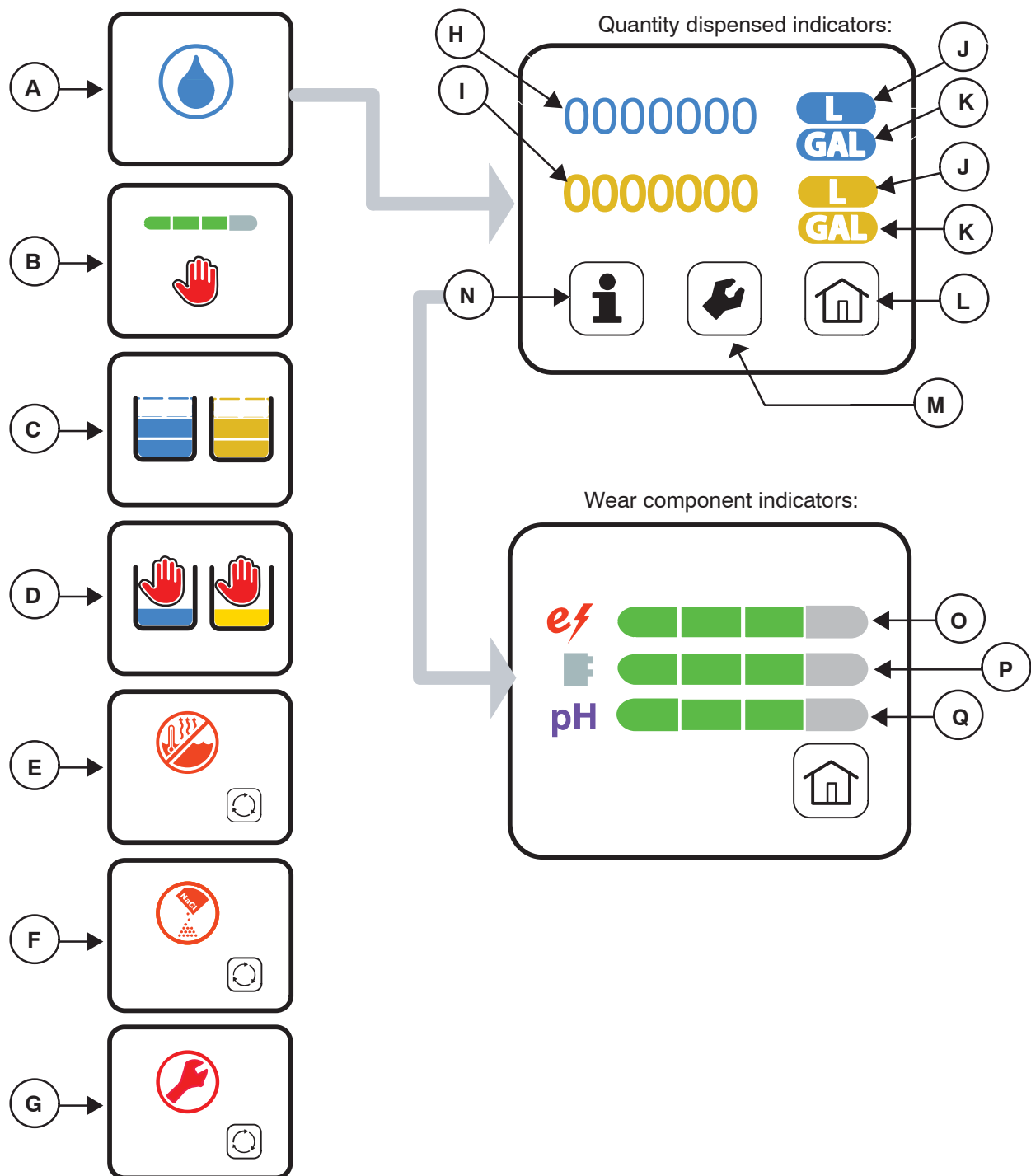
Located behind front access panel
The e-cell and manifold are assembled together as the "e-module."

SATELLITE COMPONENTS (OPTIONAL)



- M. PH probe
- N. e-cell
- O. Manifold
- P. Transport container (large)
- Q. Transport container (small)
- R. Wall hook
- S. Satellite tubing kit
- T. Satellite system water softener

DISPLAY PANEL INDICATORS



- A. Ready to Dispense indicator (Home)
- B. Machine initializing indicator
- C. Tanks filling indicator
- D. Wait to dispense indicator
- E. Water temperature too hot indicator
- F. Add Salt indicator
- G. Service required indicator
- H. MultiSurface Cleaner solution generated (diluted)
- I. Multimicro 200 Solution generated (diluted)

- J. Liter indicator
- K. Gallon indicator
- L. Home touch button
- M. Service information touch button
- N. Information touch button
- O. e-cell status indicator
- P. Manifold Status indicator
- Q. PH probe status indicator

HOW THE MACHINE WORKS

The Orbio os3 is an on-site generator that produces cleaning and antimicrobial solutions for institutional and commercial use. The os3 uses electrolysis to convert water and salt into low concentrations of sodium hydroxide (NaOH) for cleaning and hypochlorous acid (HOCl) for antimicrobial applications. These solutions are diluted through the os3 dispenser as ready to use products. No additional dilution is required.

NOTE: Store MultiSurface Cleaner and MultiMicro 200 Solution in a room/location where the temperature is between 50–110 °F (10–43 °C).

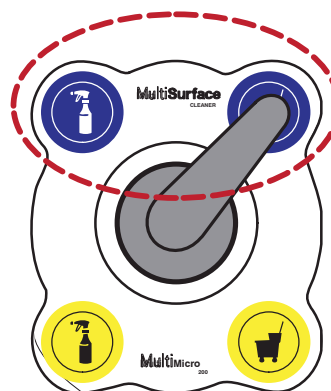
WHILE OPERATING THE MACHINE

Periodically check the display panel indicators to ensure there are no service alerts that need to be cleared. Conditions must be cleared before the os3 can be used again. Avoid running the system completely out of salt. Add water softener salt to the reservoir on a routine basis as the salt supply is consumed. When the *add salt* indicator is displayed the machine will stop until salt is added. Refer to the *Filling the Salt Reservoir* section of this manual.

The operator is responsible for ensuring that the solutions are at the proper pH and concentration levels. Refer to *TESTING THE ANTIMICROBIAL SOLUTION* and *TESTING THE CLEANING SOLUTION* in the Maintenance section of this manual for proper testing procedures.

CLEANING SOLUTION

(top positions indicated in blue)



MultiSurface Cleaner is the cleaning solution produced by the os3. MultiSurface Cleaner will clean most soiled or dirty surfaces (wool, nylon and polyester carpeting, glass, stainless steel, other metal, ceramic, laminate, painted surfaces, and other non-porous surfaces), but is not recommended for cleaning heavy petroleum based oils and greases.

NOTE: Always check carpet manufacturer specifications for color stability and shrinkage properties before using a water-based solution on carpeting.

Do not dilute MultiSurface cleaning solution with water. Water will diminish the cleaning effectiveness. MultiSurface cleaner is ready to use after dispensing.

FOR SAFETY: Do not mix MultiSurface cleaning solution with conventional cleaning chemicals. Do not drink. Refer the SDS (Safety Data Sheet) for additional safety information and precautions.

MultiSurface cleaner will remain effective for 30 days or more when stored in a clean, sealed container. Test the cleaning solution to verify the pH level is at the correct level if the solution has been stored for longer than 30 days. Refer to the *Testing the Cleaning Solution* in MAINTENANCE for additional testing information.

ANTIMICROBIAL SOLUTION
(bottom positions indicated in yellow)

MultiMicro is the antimicrobial solution generated by the os3. The os3 dilutes this solution and dispenses MultiMicro 200, the ready to use form containing 200 ppm available chlorine. MultiMicro 200 is an effective disinfecting and sanitizing solution. Do not dilute MultiMicro 200 with water. The solution is ready to use after being dispensed from the Orbio dispenser.

MultiMicro 200 stored in a spray bottle or sealed container is effective for up to 7 days. Discard expired solution.

MultiMicro *Concentrate* has a stability of 30 days. To ensure proper concentration levels, the MultiMicro tank must be evacuated at least every 30 days. Evacuate the MultiMicro *Concentrate* using the MultiMicro 200 bucket fill position. Drain until the *Wait to Dispense* indicator displays. Dispose the solution according to local waste and disposal regulations.

FOR SAFETY: Do not mix MultiMicro 200 with ammonia or acid which will produce chlorine gas. Do not mix with other cleaning products. Refer to the SDS (Safety Data Sheet) for additional safety information and precautions.

NOTE: For application information and antimicrobial claims, refer to the use directions detailed on the os3 generator label.

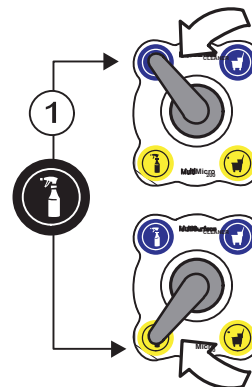
OPERATING THE ORBIO DISPENSER

The Orbio os3 and satellite systems are equipped with a four position dispenser.

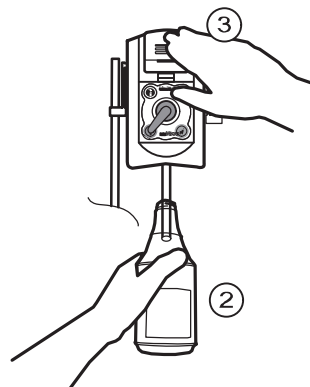
FOR SAFETY: Do not operate machine unless operator's manual is read and understood. Do not drink. Refer to SDS (Safety Data Sheet) for additional safety information and precautions.

FILLING BOTTLES

1. Turn selector knob to the bottle fill position for MultiMicro 200 or MultiSurface Cleaner.



2. Insert bottle fill nozzle into the spray bottle.
3. Push the dispenser button to fill the bottle.

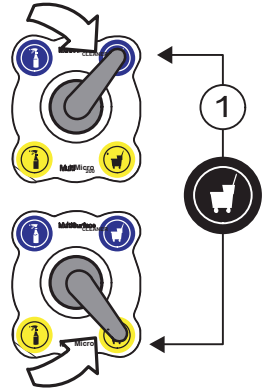


NOTE: Only use clean bottles properly labeled with labels provided with this machine. Do not use non-labeled or mis-labeled bottles.

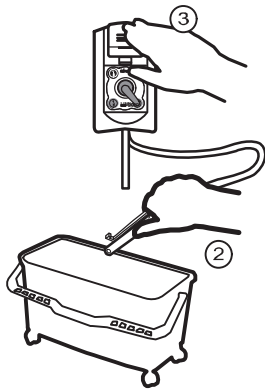
Refer to the MultiMicro 200 and MultiSurface Cleaner bottle labels for instructions for use.

FILLING BUCKETS AND EQUIPMENT

1. Turn selector knob to the bucket fill position for MultiMicro 200 or MultiSurface *Cleaner*.



2. Unhook bucket/equipment fill hose from dispenser and insert into container to be filled.
3. Push the dispenser button to fill the container.



The dispenser button can be locked into position for filling large containers. Tap the dispenser button to unlock.

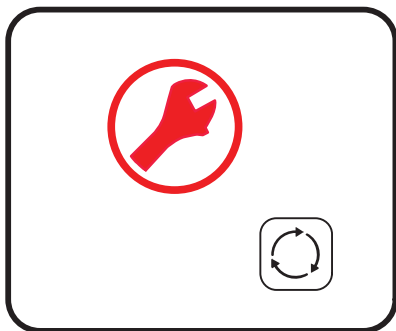
Refer to the MultiMicro 200 and MultiSurface *Cleaner* bottle labels for instructions for use.

INDICATORS

This machine is equipped with visual indicators on the touch screen to alert the operator that there is a condition that may need to be cleared.

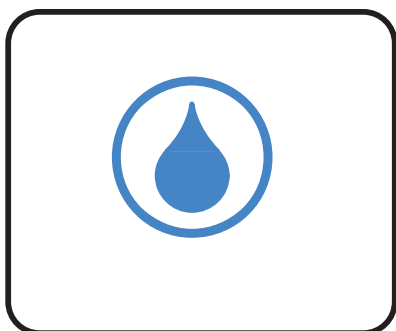
SERVICE REQUIRED INDICATOR

The *service required indicator* illuminates when The os3 needs to be serviced. In some instances an error code will be displayed under the indicator. Stop using the machine. Refer to the TROUBLE SHOOTING section of this manual to determine the cause of the condition.



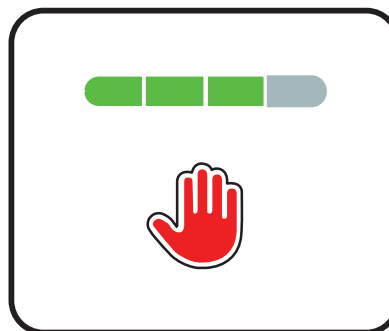
READY TO DISPENSE INDICATOR (Home Screen)

The *ready to dispense* indicator is displayed when both of the tanks are full of concentrate solution and the machine is powered.



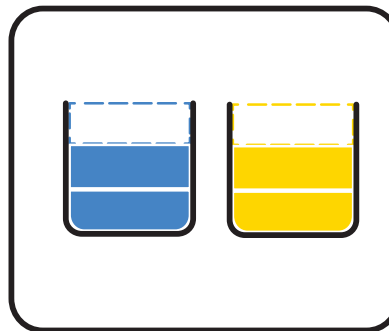
MACHINE INITIALIZING INDICATOR

The *machine initializing* indicator displays during start-up and system reset. Progress bar indicates the machine is processing information. Wait while the machine completes the initialization process.



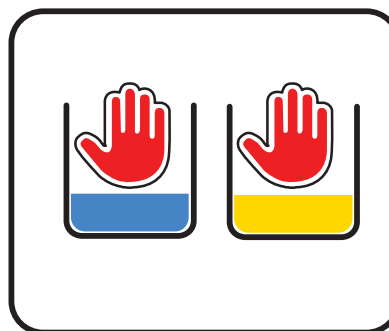
TANKS FILLING INDICATOR

The *tanks filling* indicator displays when one or both tanks are filling with solution. This indicator is for informational purposes only. The system may be used while this indicator is displayed.



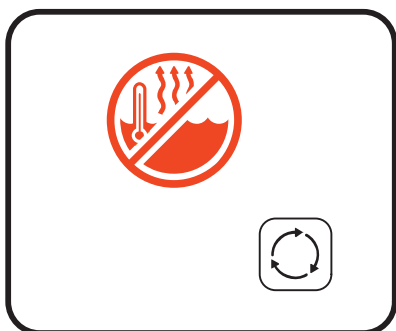
WAIT TO DISPENSE INDICATOR

The *wait to dispense* indicator is displayed when one or both tanks are empty. Do not dispense MultiSurface Cleaner (blue bars) or MultiMicro 200 (yellow bars) if the associated indicator is displayed. One solution may be ready to dispense while the other is not.



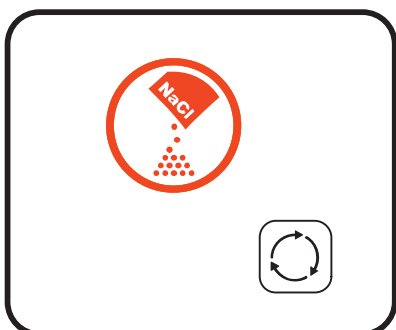
WATER TEMPERATURE TOO HOT INDICATOR

The *water temperature too hot* indicator is displayed when the water supply to the machine is too hot. Turn off the hot water and ensure there is a dedicated cold water supply. Press the reset button after changing the water supply to cold water. System will not function until condition is cleared.



ADD SALT INDICATOR

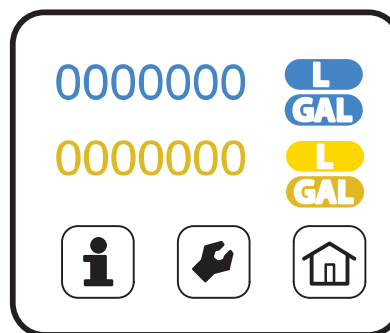
The *add salt* indicator is displayed when the salt supply in the salt reservoir is low. Add salt to the reservoir when the indicator is displayed. Refer to *Filling the Salt Reservoir* in MAINTENANCE. System will not function until condition is cleared.



QUANTITY DISPENSED INDICATOR

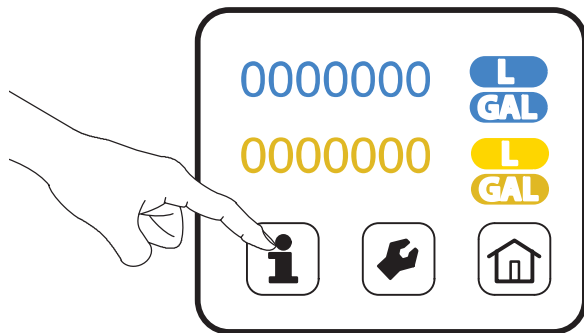
The *quantity dispensed* indicator displays the amount of diluted solution generated in both liters and gallons. The display will automatically alternate between the liter and gallon equivalent amounts. MultiSurface *Cleaner* is indicated in blue, and MultiMicro *200* is indicated in yellow.

Touch the *ready to dispense (home)* screen to access the *quantity dispensed* indicator.



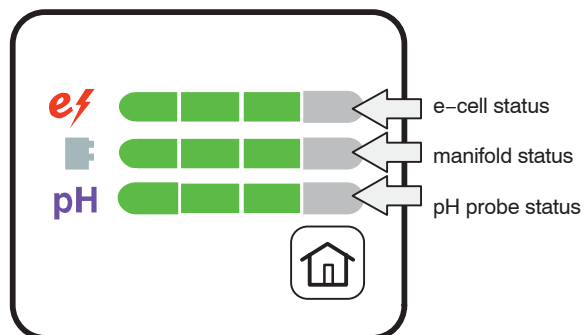
INFORMATION TOUCH BUTTON

Touch the *information touch button* to navigate to the *wear component indicators* panel.



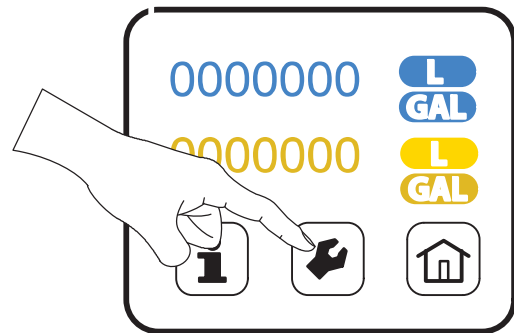
The *wear component indicators* panel displays the status of the e-cell, manifold, and pH probe. The progress bars indicate wear life. Order a new component when the final segment of a progress bar is yellow. Replace the component when the segment is red.

Refer to *Replacing Wear Components* in MAINTENANCE for instructions on replacing these system components.



SERVICE INFORMATION TOUCH BUTTON

This button is used for trained service personnel to access data for system troubleshooting.



TROUBLESHOOTING

Problem	Cause	Remedy
No solution flow from dispenser.	No water supply.	Turn on water
		Check for kinked or bent water lines.
Screen is blank.	No power.	Check power cord connections at both ends. Confirm cord is connected to outlet and power supply.
		Power supply switch is turned off (in rear of machine).
		GFCI outlet tripped. Reset outlet.
<i>Low salt</i> indicator will not clear after multiple resets.	No salt.	Add salt to reservoir.
		Check for salt bridge in reservoir. Break loose to provide salt to system.
SYS120 error	No water to system.	Turn on water.
		Check for kinked or pinched hoses.
	System requires flush.	Dispense 19 Liters (5 Gallons) of solution through the dispenser and cycle power.
EC110	Water too cold.	Ensure all system components and water supply is above 5 C (41 F). Warm system and press reset.
COM110	Communication error between water softener and generator.	Check DB9 cable that connects water softener and generator. Check connections on both softener and generator.
COM100	Circuit board (power board) not connected.	Unplug machine. Press power board and firmly seat into slot (next to e-module).
WS100	Possible lack of water to system.	Ensure water is turned on.
PCB120	Expired pH probe.	Replace pH probe.
PM100	Ambient temperature too hot.	Machine must be in an environment less than 100 C (230 F) to operate. Resolve temperature and reset.
Chlorine test paper strips show low ppm of MultiMicro 200.	Call technical support.	
pH test paper strips show pH of MultiSurface Cleaner less than 10.	Call technical support.	
Solution leaking from os3	Loose or damaged fitting. Damaged salt reservoir or storage tanks.	Turn off water, unplug machine, and call technical support.
Water softener overflows	Obstruction or malfunction	Turn off water, unplug machine, and call technical support.

See *Indicators* in the OPERATION section of this manual for instruction on machine indicators.

If a problem cannot be resolved with the associated remedy, or an error code is displayed that is not listed in this troubleshooting guide, contact Tennant Company Technical Support at 1-800-553-8033.

MAINTENANCE**FILLING THE SALT RESERVOIR**

Fill the salt reservoir with salt whenever the *add salt* indicator is displayed. Use standard water softener salt pellets (solar or evaporated).

Do not use rock salt to fill the salt reservoir.

1. Remove the cover from the salt reservoir.

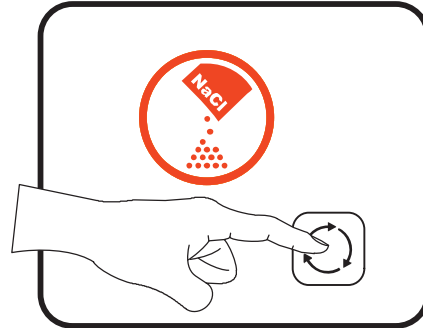


2. Pour the bag of salt into the salt reservoir. Fill the salt reservoir to approximately 50mm (2inches) below the salt reservoir opening.



3. Reinstall the cover onto the salt reservoir.

4. Press the *reset touch button* and allow the system to generate solution. The pump will operate at a high rate while generating solution. Multiple resets may be required before the condition is cleared.



REPLACING WEAR COMPONENTS

REPLACING THE pH PROBE

Requires service kit AS20052 PH PROBE REPLACEMENT

Replace the pH probe annually. The machine will not function with an expired pH probe. When the remaining progress bar is displayed in yellow, order the replacement kit. Install new pH probe when segment turns red after one year of operation.

pH 
Order new pH probe
(yellow)

pH 
Replace pH probe
(red)

When the pH probe expires, the machine will not operate and the PCB120 error code will be displayed:

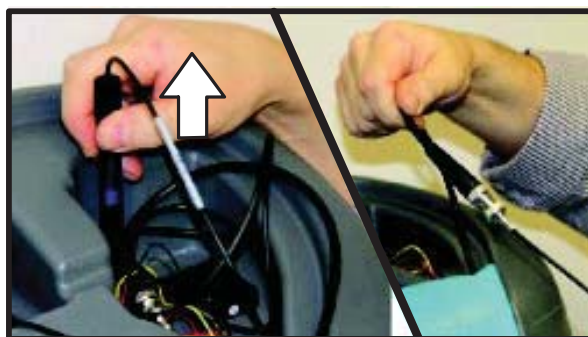


Installing a new pH probe will clear this condition. To prevent machine down time replace the pH probe immediately when the last wear indicator segment turns red. This error code can be preempted by replacing the probe during yellow status.

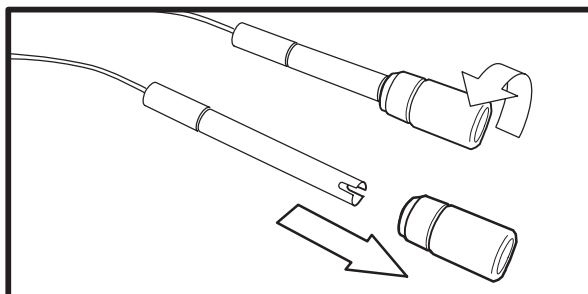
1. Remove top cover.



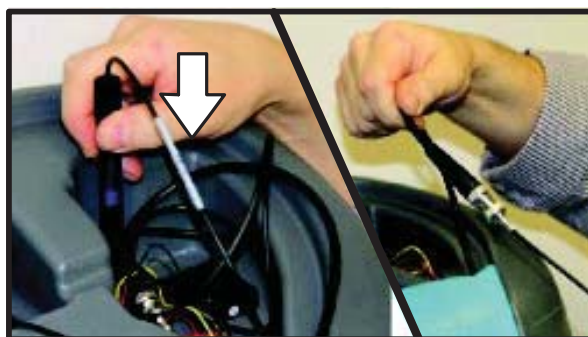
2. Disconnect existing pH probe, remove and discard.



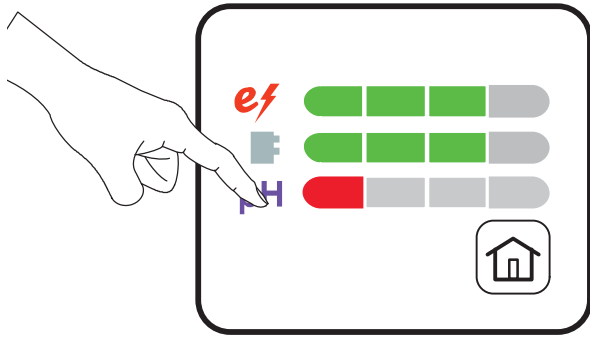
3. Remove and discard saline vial from replacement pH probe.



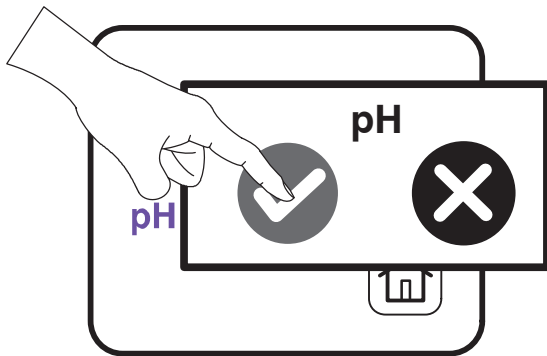
4. Install new pH probe in pocket on top of machine and connect to wire harness:



- Press pH icon on touchscreen.



- Confirm new pH probe installation.



- Verify correct installation on the *Wear Component Status Indicator Panel*. All segments on the progress bar will display as green indicating a new pH probe.



- Reinstall the top cover.

- Update product label.

Place the *MultiMicro Directions for Use* label included in the pH probe service kit over the existing label if the revision level number on the replacement label is greater. The label is located on the lower right hand side of the os3 generator.

Note: The pH probe service kit may contain more than one MultiMicro Directions for Use label. Select the appropriate label by country.



REPLACING THE e-CELL

Requires service kit AS20041 E-CELL REPLACEMENT

Refer to the *Wear Component* Indicators panel on the touch screen display for status of system wear components. Order a replacement e-cell when the remaining segment on the progress bar turns yellow. Replace the e-cell when the the segment turns red.



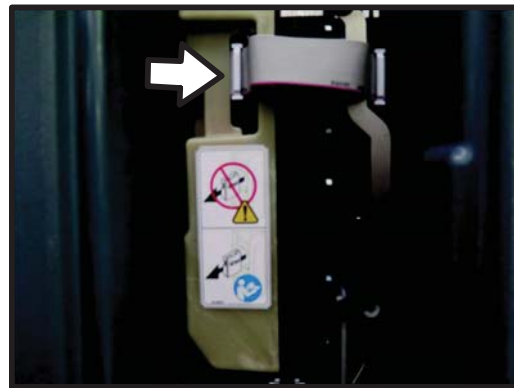
1. Disconnect power cord from outlet.

FOR SAFETY: When servicing machine unplug cord from wall outlet.

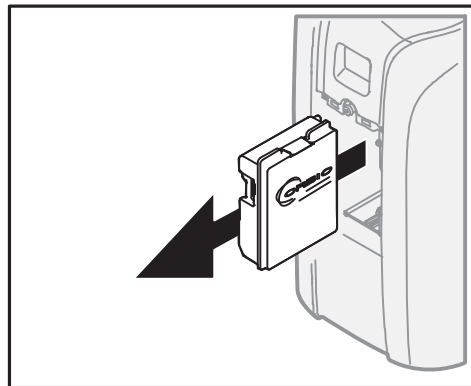
2. Turn off water.
3. Dispense either the MultiSurface or MultiMicro solution into a bucket or a drain to depressurize the system.
4. Remove front access panel using the access key.



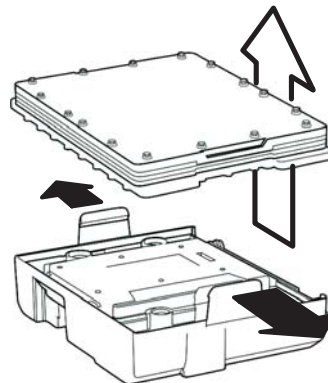
5. Disconnect ribbon cable.



6. With a firm grip pull out e-module from os3.



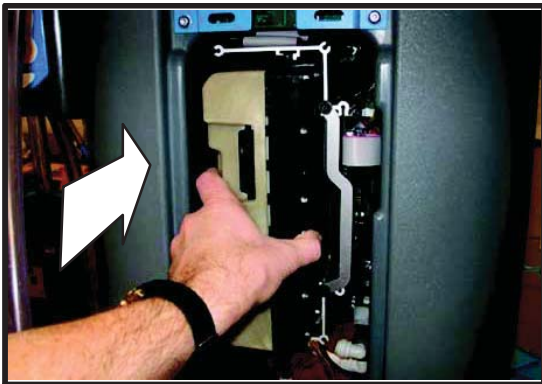
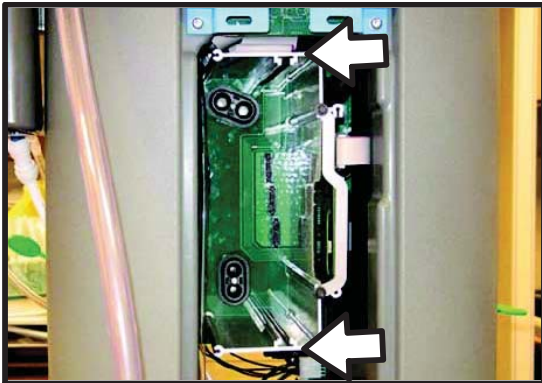
7. Flex tabs on manifold and separate from e-cell. Dispose of old e-cell properly.



8. Install new e-cell onto manifold. Note port and connector locations. Be sure the snaps hold the e-cell and manifold securely together.

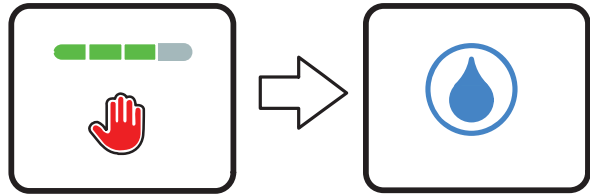


9. Engage e-module into rails on chassis. Press firmly until fully seated.

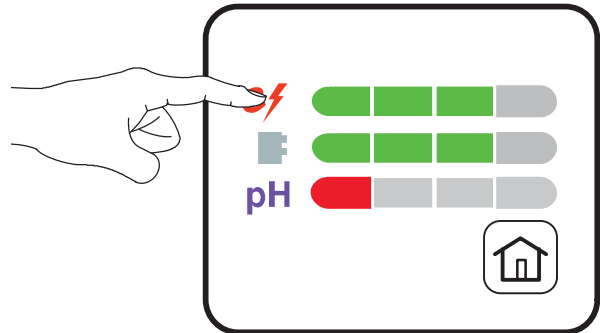


10. Reconnect ribbon cable.
11. Turn on water.
12. Power machine by plugging into outlet.
13. Check for leaks.

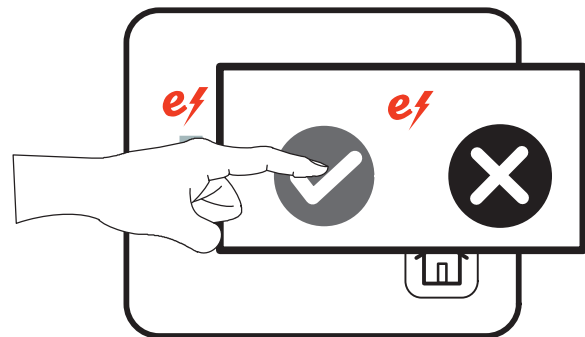
14. Wait to complete initialization.



15. Press e-cell icon on touchscreen.



16. Confirm new e-cell installation.



17. Verify correct installation on the *Wear Component Status Indicators* panel. All segments on the progress bar will display as green indicating a new e-cell.



18. Reinstall front access panel and secure with key.

REPLACING THE MANIFOLD

Requires service kit AS20044 MANIFOLD REPLACEMENT

Refer to the *Wear Components* Indicators panel on the touch screen display for status of system wear components. Order a replacement manifold when the remaining segment of the progress bar turns yellow. Replace the manifold when the segment turns red.



Order new manifold
(yellow)



Replace manifold
(red)

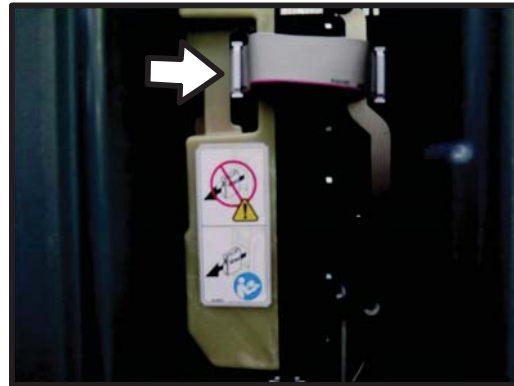
1. Disconnect cord from outlet.

FOR SAFETY: When servicing machine unplug cord from wall outlet.

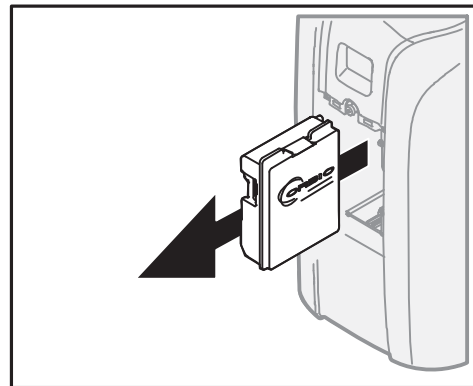
2. Turn off water.
3. Dispense either the MultiSurface or MultiMicro solution into a bucket or a drain to depressurize the system.
4. Remove front access panel using the access key.



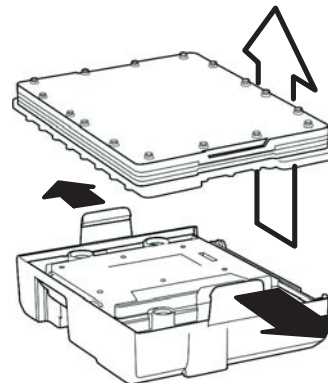
5. Disconnect ribbon cable.



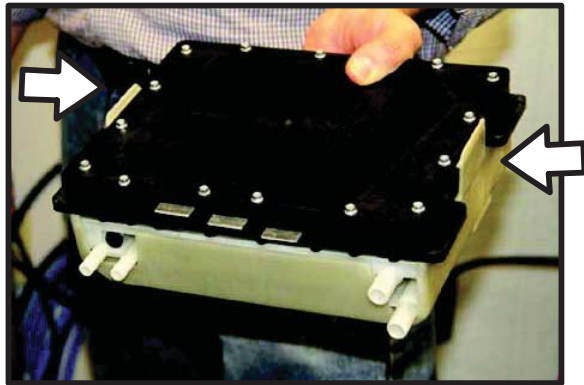
6. With a firm grip pull out e-module from os3.



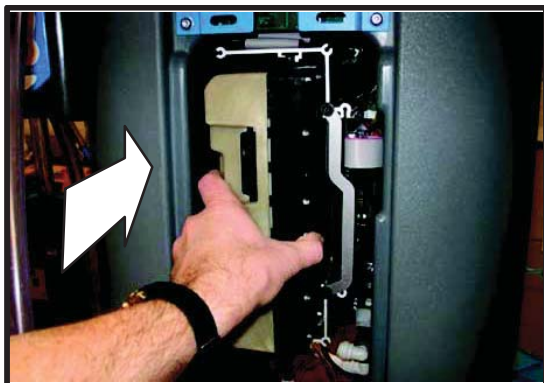
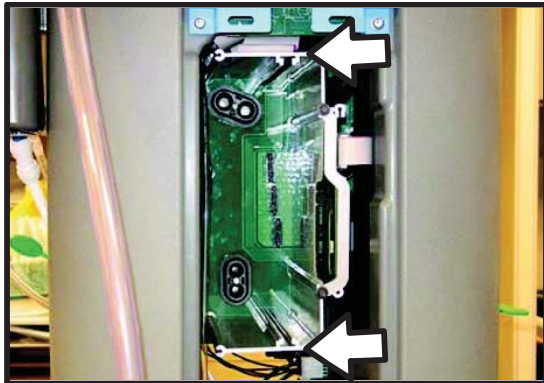
7. Flex tabs on manifold and separate from e-cell. Dispose of old e-cell properly.



8. Install e-cell onto new manifold. Note port and connector locations. Be sure the snaps hold the e-cell and manifold securely together.

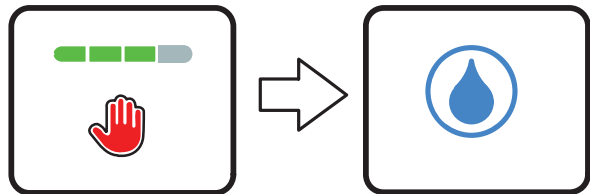


9. Engage e-module into rails on chassis. Press firmly until fully seated.

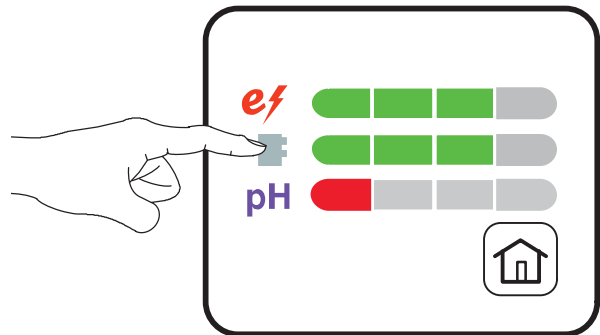


10. Reconnect ribbon cable.
11. Turn on water.
12. Power machine by plugging into outlet.
13. Check for leaks.

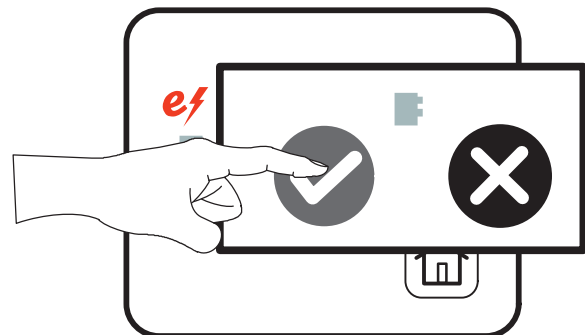
14. Wait to complete initialization.



15. Press manifold icon on touchscreen.



16. Confirm new manifold installation.



17. Verify correct installation on the *Wear Component Status Indicators* panel. All segments on the progress bar will display as green indicating a new manifold.



18. Reinstall front access panel and secure with key.

TESTING THE ANTIMICROBIAL SOLUTION

Test MultiMicro 200 solution to verify proper dilution through the Orbio dispenser. This procedure will test both the bottle and bucket fill metering tips.

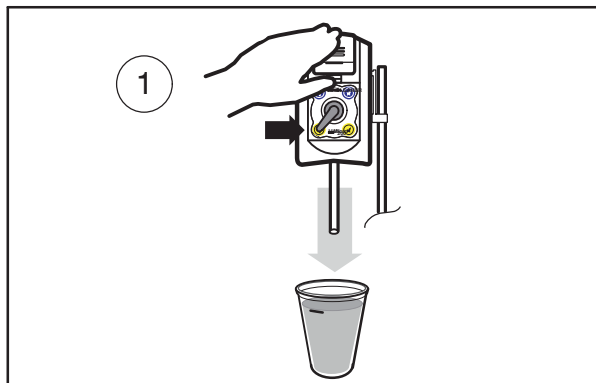
Tools required: Orbio Chlorine Test Paper and 2 clean 240 cc (8 oz.) containers.



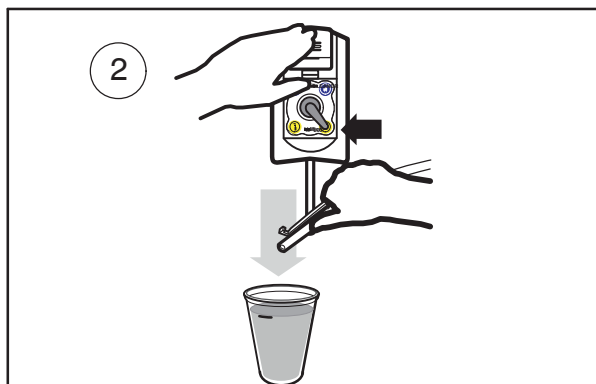
Orbio Chlorine Test Paper

If the solution test paper does not indicate 200 ppm contact technical support. Discard solution that does not pass this test procedure.

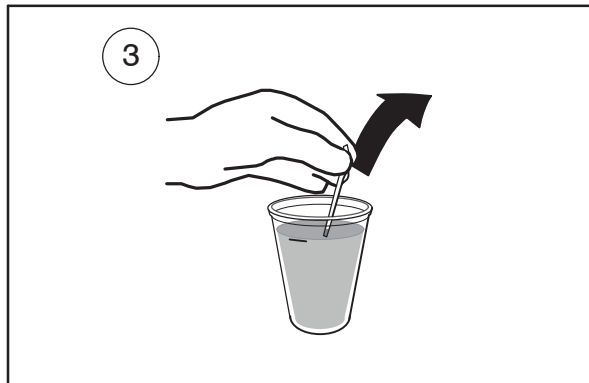
1. Fill one container with solution from the bottle fill tube.



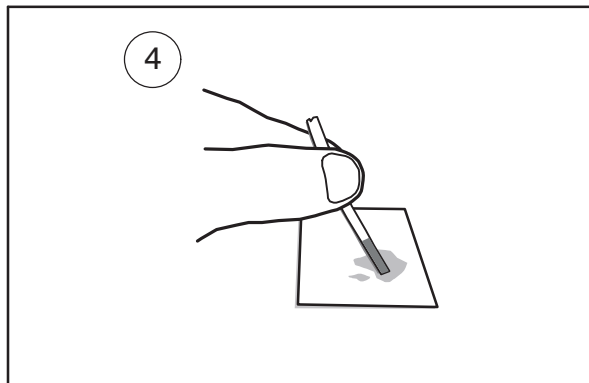
2. Fill the second container with solution from the bucket fill tube.



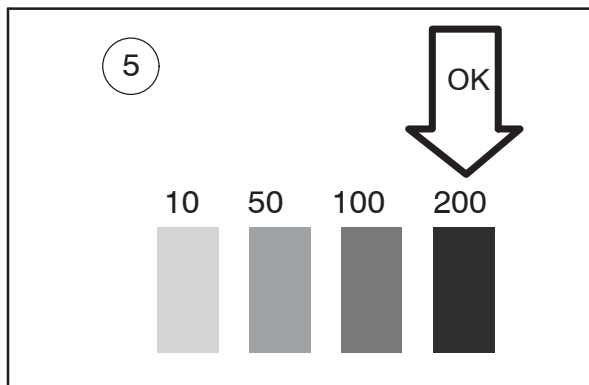
3. Using a chlorine test strip for each container, dip and remove quickly.



4. Blot immediately.



5. Compare to color chart on test paper container. "200" indicates correct concentration.



TESTING THE CLEANING SOLUTION

Test MultiSurface *Cleaner* to verify proper dilution through the Orbio dispenser. This procedure will test both the bottle and bucket fill metering tips.

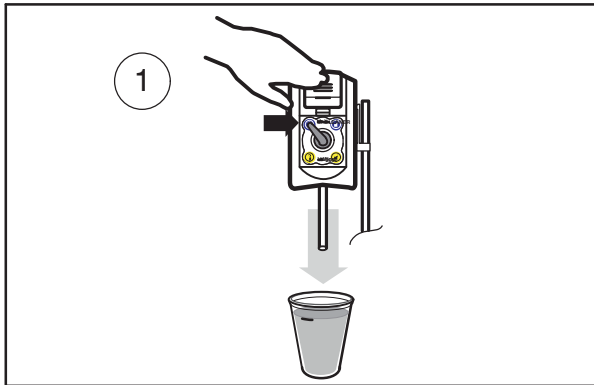
Tools required: Orbio pH Test Paper and 2 clean 240 cc (8 oz.) containers.



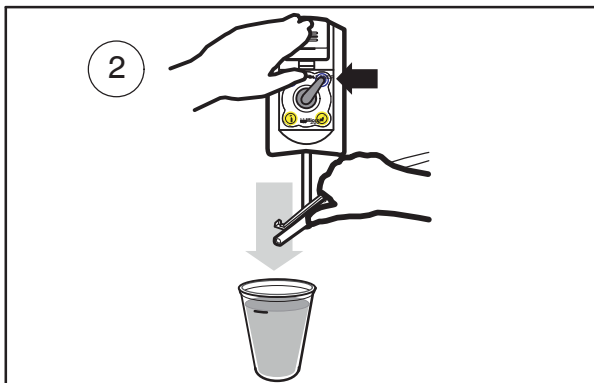
Orbio pH Test Paper

If the solution has a pH less than 10, discard the solution. This test method can also be used to test solution that has been stored for more than 60 days.

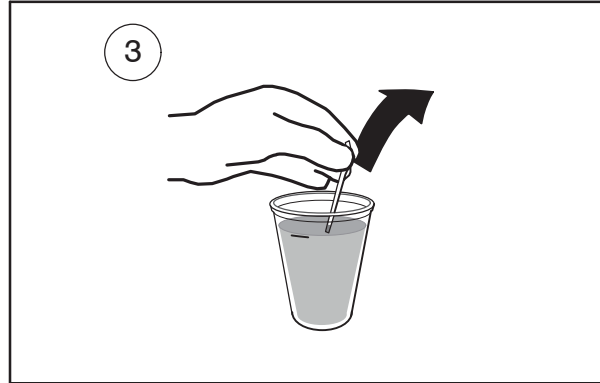
1. Fill one container with solution from the bottle fill tube.



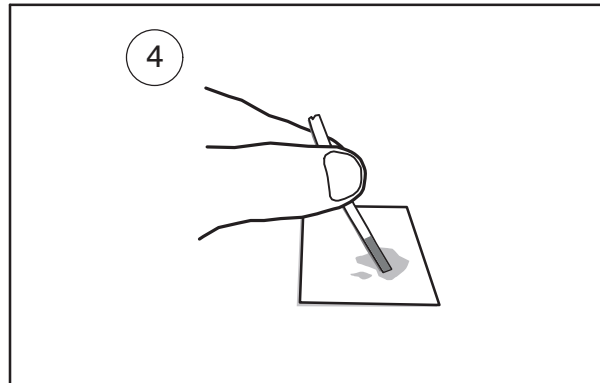
2. Fill the second container with solution from the bucket fill tube.



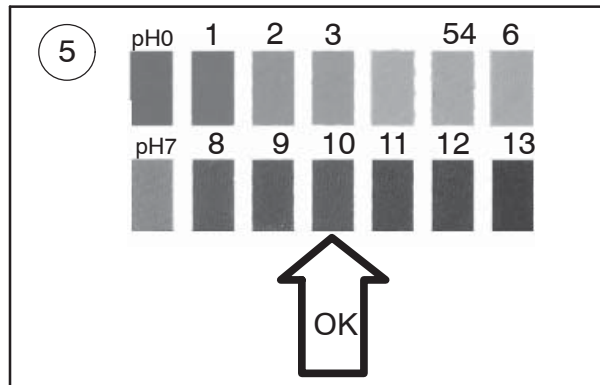
3. Using a pH test strip for each container, dip and remove quickly.



4. Blot immediately.



5. Compare to color chart on test paper container. "10" or greater indicates adequate pH level.



SATELLITE SYSTEMS

The os3 system may be equipped with one or more satellite systems. The satellite systems allow dilution of MultiMicro *Concentrate* and MultiSurface *Concentrate* in remote locations through an Orbio Technologies dispenser.

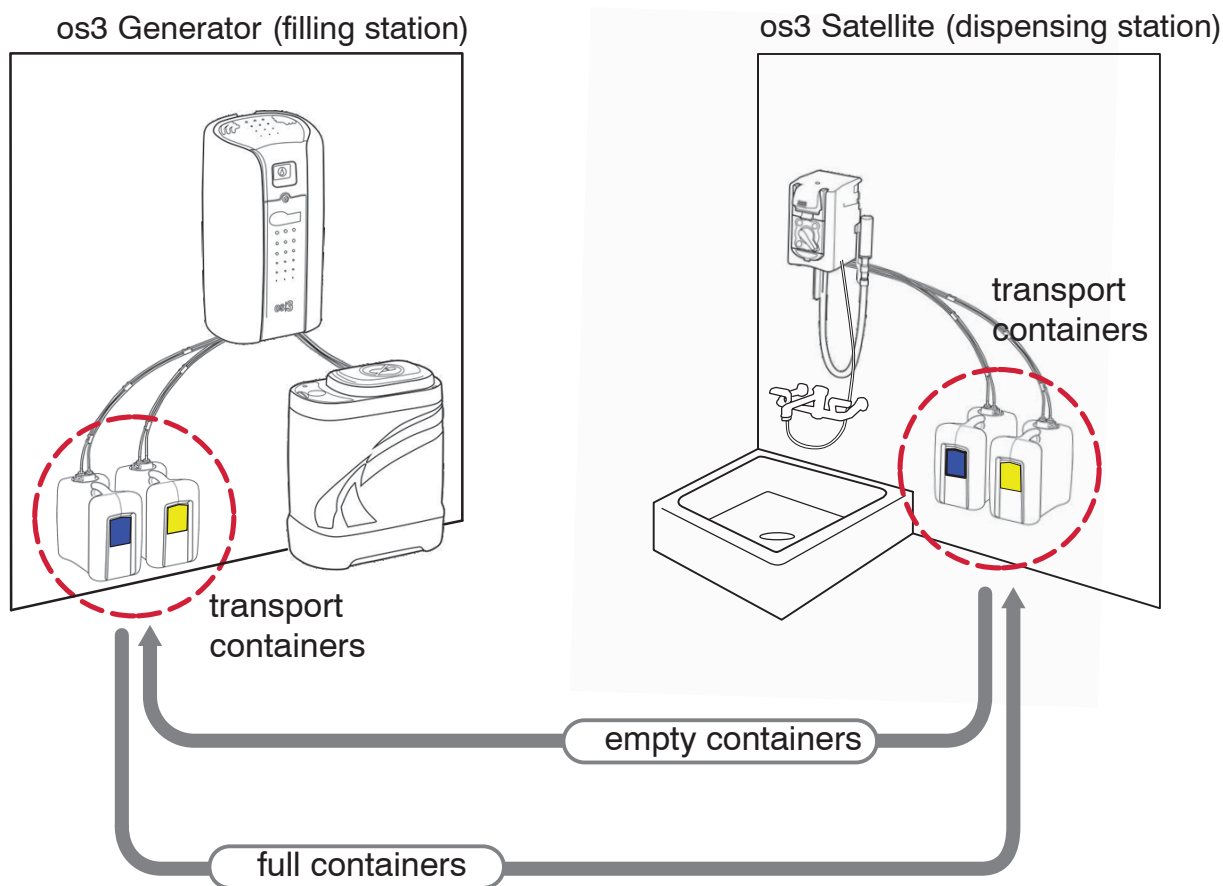
Orbio transport containers are filled at the os3 generator and moved to the satellite station location where the concentrate is diluted into a RTU (ready-to-use) solution. When empty, transport containers are returned to the os3 generator to be filled. The empty container is replaced with a full container at the satellite station.

Only completely emptied transport containers should be filled at the os3 generator. Any remaining amount of either MultiMicro *Concentrate* or MultiSurface *Concentrate* can be evacuated by diluting the concentrate with water through the satellite system dispenser. Dispose of according to local waste disposal regulations.

Note: Do not refill partially empty containers. The residual solution in the transport container will compromise the shelf life and effectiveness of the concentrate.

MultiSurface *Concentrate* can be stored in a transport container for 90 days.

MultiMicro *Concentrate* can be stored in a transport container for 30 days.



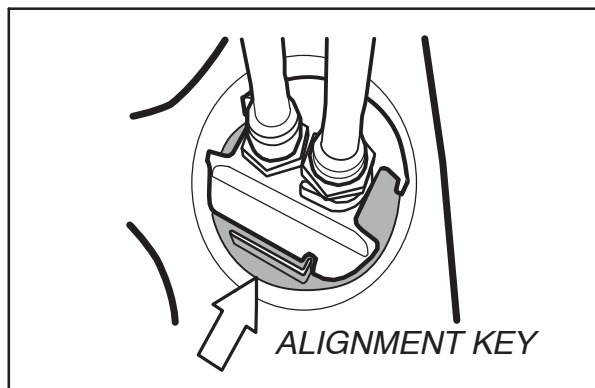
CONNECTING AND DISCONNECTING TRANSPORT CONTAINERS

Quick-connect caps attach the transport containers to the os3 generator and satellite systems. The caps are color coded to ensure correct installation. MultiMicro 200 connecting caps are yellow, and MultiSurface connecting caps are blue.

NOTE: Caps are designed to prevent access to the concentrate solution. Do not attempt to remove the caps from the container.

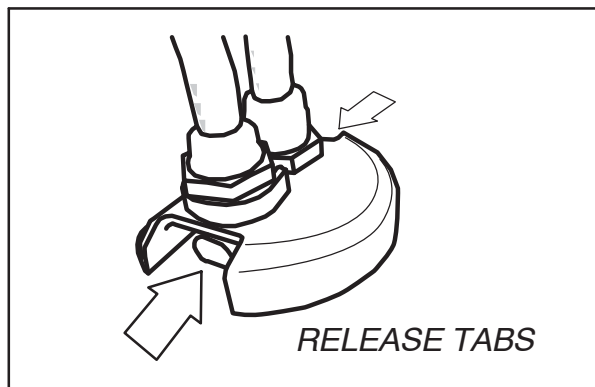
CONNECTING

Align section of cap with “L” shaped key on the transport container. Push firmly until the cap locks to the receptacle on the container.



DISCONNECTING

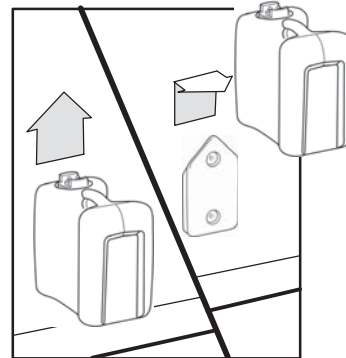
With thumb and forefinger, squeeze release tabs on cap and lift cap away from transport container.



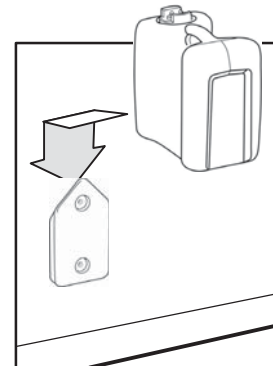
USING THE TRANSPORT CONTAINER WALL HOOK

Transport containers may be secured to the wall with an os3 wall hook.

To remove a container from the wall hook, lift the container up slightly and then away



To install the container on an os3 wall hook, position the transport container immediately above the wall hook and slowly lower the transport container until the hook engages.



Note: Do not stack transport containers when on wall hook.

For additional accessories and information about Orbio satellite systems for the os3, see a sales representative or go to www.orbio.com.

SPECIFICATIONS

os3 GENERATOR

Item	Measure
Depth	356 mm (14 in)
Width (with dispenser attached)	610 mm (24 in)
Width (without dispenser attached)	457 mm (18 in)
Height	813 mm (32 in)
Weight (empty)	18 kg (40 lbs)
Weight (filled with solution)	47 kg (103 lbs)
Operating ambient temperature	10°–43° C (50°–110° F)

os3 Water Softener

Item	Measure
Depth	356 mm (14 in)
Width (with dispenser attached)	610 mm (24 in)
Height	686 mm (27 in)
Weight (empty)	20 kg (44 lbs)
Weight (filled with solution)	112 kg (247 lbs)
Operating ambient temperature	10°–43° C (50°–110° F)
Salt type	Standard water softener pellets (solar or evaporated) – Not rock salt or crystals
Salt reservoir capacity	68 kg (150 lbs)

POWER

Item	Measure
Circuit Required (min)	15A
Input AC voltage	120V/60Hz
Input AC voltage (International)	230V/50Hz

DISPENSING SYSTEM

Item	Measure
MultiSurface Cleaner pH (RTU)	10–11.5
MultiMicro 200 pH (RTU)	6–8

GENERATION SYSTEM

Solution Type	Item	Measure
MultiSurface Concentrate	Generator tank capacity	19 L (5 gal)
	MultiSurface Concentrate pH	12.2–12.49
MultiMicro 200 Concentrate	Generator tank capacity	13 L (3.5 gal)
	MultiMicro 200 Concentrate pH	5–6

WEAR COMPONENTS

Item	Measure
pH probe life	1 year
e-cell life	136,000 L (36,000 gal) of MultiSurface cleaner (RTU)
Manifold module life	454,000 L (120,000 gal) of MultiSurface cleaner (RTU)

SATELLITE SYSTEM – TRANSPORT CONTAINERS

Item	Dimension/capacity
Large transport container concentrate capacity	9.5 L (2.5 gal)
Large transport container concentrate weight (filled)	10.9 kg (24.0 lbs)
Small transport container concentrate capacity	4.7 L (1.25 gal)
Small transport container concentrate weight (filled)	5.9 kg (13.0 lbs)

SATELLITE SYSTEM – DISPENSING SYSTEM

Solution Type	Item	Dimension/capacity
Multisurface Cleaner	Dispenser dilution ratio	10:1
	Bottle fill dispenser flow rate	5.7 lpm (1.5 gpm)
	Bucket fill flow rate	11.4 lpm (3.0 gpm)
MultiMicro 200	Dispenser dilution ratio	7:1
	Bottle fill dispenser flow rate	5.7 lpm (1.5 gpm)
	Bucket fill flow rate	8.3 lpm (2.2 gpm)

SATELLITE SYSTEM – WATER SOFTENER

Item	Dimension/capacity
Salt type	Standard water softener pellets (solar or evaporated) – Not rock salt or crystals
Depth	457 mm (18 in)
Width	267 mm (10.5 in)
Height	584 mm (23.0 in)
Operating Ambient temperature	10°–43° C (50°–110° F)

MACHINE DIMENSIONS

